

I claim:

1. A switch comprising:

a single piece plastic hinge, the hinge having a base portion and flexible section which extends between the base portion and an arm portion extending over the base portion;

a magnetic field sensor mounted to the base portion; and

an activation magnet mounted to the arm portion, the flexible section elastically biasing the arm portion and the actuation magnet away from the magnetic field sensor mounted to the base portion so that the magnetic field sensor is activated by elastically pushing the arm portion towards the base portion.

2. The switch of claim 1 wherein the base portion has portions forming a stop which extends upwardly from the base portion, and which engages the arm when it is moved downwardly towards the base, thus limiting the travel of the arm towards the base.

3. The switch of claim 1 wherein the base portion transitions without thickness discontinuity into the hinge portion which is approximately one-half as thick as the base portion, and the hinge portion transitions without thickness discontinuity into the arm portion which is about as thick as the base portion.

4. The switch of claim 1 wherein the base portion has at least one fastener hole, and wherein the arm portion does not extend over the at least one fastener hole.

5. The switch of claim 1 wherein the magnetic field sensor is a Hall effect sensor.

6. The switch of claim 1 wherein the magnetic field sensor is a reed switch.

7. The switch of claim 1 wherein portions of the arm portion form a magnet receiving cavity in which the activation magnet is positioned.

8. The switch of claim 1 wherein the plastic hinge is constructed of polypropylene.

9. A switch comprising:

a single piece plastic hinge body;

a base forming a portion of the plastic hinge body, the base being mounted to a support structure by a plurality of fasteners extending through the base;

a U-shaped hinge integrally formed with the base;

an arm integrally formed with the base and the U-shaped hinge, wherein the U-shaped hinge extends between the base and the arm, and wherein the arm extends over at least a portion of the base;

a magnetic field sensor mounted to the base; and

an activation magnet mounted to the arm, the U-shaped hinge elastically biasing the arm portion and the activation magnet away from the magnetic field sensor mounted to the base so that the magnetic field sensor is activated by elastically pushing the arm portion towards the base.

10. The switch of claim 9 wherein the base has portions forming a stop which extends upwardly from the base, towards the arm, and which engages the arm when it is moved downwardly towards the base, the stop limiting the travel on the arm towards the base.

11. The switch of claim 9 wherein the base transitions without thickness discontinuity into the U-shaped hinge which is substantially less

thick than the base, and the U-shaped hinge transitions without thickness discontinuity into the arm portion which is about as thick as the base.

12. The switch of claim 9 wherein the base has portions defining at least one fastener hole, and wherein the arm does not extend over the at least one fastener hole.

13. The switch of claim 9 wherein the base has an end face opposite the U-shaped hinge, and wherein portions of the base form a sensor cavity into which the magnetic field sensor is placed.

14. The switch of claim 9 wherein the magnetic field sensor is a Hall effect sensor.

15. The switch of claim 9 wherein the magnetic field sensor is a reed switch.

16. The switch of claim 9 wherein portions of the arm form a magnet receiving cavity in which the activation magnet is positioned.

17. The switch of claim 9 wherein the extruded plastic hinge body is constructed of polypropylene.